0″.1, this has been neglected in making a comparison of the original readings, with the same corrected for eccentricity. This being done for each microscope, the residuals of the readings upon the same circle divisions under different microscopes give an indication of the errors of division. These are found to be sometimes as large as 0″.6, and, on the average, 0″.3.

The error of division for the mean of four microscopes, on the settings used, does not appear to exceed 0″.1 on the average. The comparison of the undividual readings corrected for eccentricity, gives for the *probable error* of the reading upon a single microscope ± 0″.25, which is larger than that usually found in making comparisons by other means. R. H. T., Jr.

The Dallmeyer Lens of the Eclipse Expedition.

In No. 31 of the *A. S. P. Publications*, under the heading, "Acknowledgments," the name of Hon. Wm. M. Pierson should have been included in the list of those who had materially aided the expedition.

Mr. Pierson's practical interest in astronomy is well known to Californians. From his private observatory he furnished the expedition with the excellent Dallmeyer lens of 6-inches aperture with which such valuable eclipse negatives were secured. The same lens was also used in several series of observations for determining the photographic absorption of light rays by our atmosphere at the altitude 6600 feet.

A number of long-exposure photographs of interesting celestial objects visible in the southern sky were also secured with Mr. Pierson's lens. J. M. S.

The Observatory on Mont Blanc.

The construction of a small observatory on Mont Blanc for the venerable astronomer, M. Janssen, of Meudon, France, a work of very great difficulty and danger, has progressed satisfactorily the past summer. The foundation has been firmly fixed in the snow and ice, and the building is practically enclosed. From a recent publication of the French Academy we learn that M. Janssen visited the new observatory in September, and was able to make a spectroscopic observation of great interest. It related to the question of oxygen in the atmosphere of the Sun. One of the most striking features of the

solar spectrum is the B group of absorption lines, near the red end of the spectrum. In addition to the complex head of the group there are thirteen or fourteen double lines whose intensities decrease as the distance of the doublets from the head increases. These lines owe their origin to oxygen absorption; but the question has been, is the absorption due to oxygen in the solar atmosphere or in the Earth's atmosphere. If the latter, then the lines should not be so prominent if observed at a station of great altitude. M. JANSSEN states that at the station, Chamonix, altitude 1050 metres, the thirteenth doublet is seen with great difficulty; at Grands-Mulets (3050 metres) only eleven or twelve doublets can be seen; while at the summit of Mont Blanc only eight can be seen with certainty. The conclusion to be drawn from these observations is that the B group of absorption lines would not be visible to an observer at the upper limit of our atmosphere, and therefore owes its origin to the oxygen in our own atmosphere.

M. JANSSEN is also of the opinion that the prominent groups A and a are of terrestrial origin, and would disappear at the upper limit of our atmosphere.

There is a wide field of useful work before the Mont Blanc observers, and astronomy is again indebted to the generosity of M. BISCHOFFSHEIM, who is defraying a large part of the expense of construction and equipment. We trust that the difficulties of life on the summit may not impose very narrow limits upon the investigations to be undertaken. W. W. C.

THE SPECTRUM OF *ALCYONE* (η *TAURI*).

The spectrum of *Alcyone* is always classed as SECCHI's type I, or *A*, as in the DRAPER Catalogue; that is, a spectrum containing dark (and usually rather broad) hydrogen lines. I have observed this star visually, and found the Hα hydrogen line to be bright. It is not very intense, but in good seeing is easily visible with the 36-inch telescope. There is a narrow dark line in contact with it on the side of smaller wave-length, and possibly a still finer one on the side of greater wave-length. I do not think this line can be seen with a 12-inch telescope.

A photograph of the portion of the spectrum between Hβ and K shows Hβ, Hγ, Hδ and H to be dark, as was expected, and a few additional fine dark lines. W. W. C.

September 7, 1893.